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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/693,673	10/19/2000	Thomas E. Saulpaugh	5181-64200	7203

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EXAMINER

MANIWANG, JOSEPH R

ART UNIT	PAPER NUMBER
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2142

DATE MAILED: 12/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PL

Office Action Summary	Application No.	Applicant(s)	
	09/693,673	SAULPAUGH ET AL.	
	Examiner	Art Unit	
	Joseph R Maniwang	2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 19 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>5,6,7</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Application claims priority from provisional application 60/202,975 filed on May 9, 2000, and provisional application 60/208,011 filed on May 26, 2000, and provisional application 60/209,430 filed on June 2, 2000, and provisional application 60/209,140 filed on June 2, 2000, and provisional application 60/209,525 filed on June 5, 2000. The effective filing date of the application is May 9, 2000.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-4, 9-12, 16-20, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Wold et al. (U.S. Pat. No. 5,386,568), hereinafter referred to as Wold.
4. Regarding claims 1, 9, and 17, Wold disclosed a method and system for linking software modules together. Software modules to included objects, functions, routines, procedures, or applications (see column 4, lines 63-65), which meet the applicant's

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definition of a client. Each software module communicated with other software modules through a plurality of associated input and output objects (see column 5, lines 18-23), thus providing message gates as claimed. Wold disclosed the ability to connect software modules across a network between different devices (see column 4, line 67 through column 5, line 2; column 10, lines 57-61; column 11, lines 7-9). Wold further disclosed the use of a protocol for such a network, for which a software module would determine the address of a remote device, providing a transport reference as claimed (see column 11, lines 9-13).

5. Regarding claims 2-4, 10-12, and 18-20, Wold disclosed verifying the data type of a transmitted message according to a table of actions (see column 10, lines 5-9).

The disclosed invention could further verify message formats (see column 10, lines 25-32).

6. Regarding claims 16 and 24, Wold disclosed naming input and output objects, where the name could include an address or location pointer (column 6, lines 50-59).

7. Claims 1, 9, 16, 17, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Hill et al. (U.S. Pat. No. 5,511,197), hereinafter referred to as Hill.

8. Regarding claims 1, 9, and 17, Hill disclosed a method and system for communicating data between processes across a network. Hill disclosed creating a server object stub and interface, a client object proxy and interface, and a channel between the two (see column 5, line 60 through column 6, line 4). The stub and proxy objects sent and received messages, acting as message gates as claimed (see column

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7, lines 19-42). Hill disclosed the use of a protocol for stub channels (see column 20, lines 29-31). Proxies and stubs shared channels and the RPC runtime for communication, but each object communicated independently (see column 14, lines 35-55; Fig. 14). Hill further disclosed the use of a server network address, providing a transport reference as claimed (see column 20, lines 4-8).

9. Regarding claims 16 and 24, Hill disclosed identifying stubs with an address (see column 10, lines 30-32).

10. Claims 1-4, 8-12, 15, 17-20, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Serlet et al. (U.S. Pat. No. 5,481,721), hereinafter referred to as Serlet.

11. Regarding claims 1, 9, and 17, Serlet disclosed a method and system for transmitting messages between objects located in different processes. A proxy object provided a way to send and receive messages on behalf of objects, thus providing message gates as claimed (see column 6, lines 53-63). Serlet disclosed creating a plurality of proxies for a process (see column 11, lines 49-53). Serlet disclosed using a specific protocol between sender and receiver (see column 12, lines 25-30). Gates were matched in a master/slave relationship, and the used ports for communication between processes, thus providing a transport reference as claimed (see column 12, lines 7-13).

12. Regarding claims 2-4, 10-12, and 18-20, Serlet disclosed varying messages for type and form of encoding (see column 12, lines 30-45).

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13. Regarding claims 8, 15, and 23, Serlet disclosed sending messages in both directions through the established connection, thus providing a bi-directional channel as claimed (see column 12, lines 21-24).

14. Claims 1-4, 8-12, 15, 17-20, and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Marcos et al (U.S. Pat. No. 6,347,342), hereinafter referred to as Marcos.

15. Regarding claims 1, 9, and 17, Marcos disclosed a method and system for transmitting message objects between a client and server. A connection between client objects and server objects was created through proxy and stub objects, which allowed for sending and receiving messages, thus providing message gates as claimed (see column 9, lines 39-41). An association was mapped between proxy and stub objects, pairing them together (see column 7, lines 37-39). Marcos disclosed a transport layer for transmitting messages, and disclosed the use of a protocol within the transport (see column 8, lines 36-41).

16. Regarding claims 2-4, 10-12, and 18-20, Marcos disclosed proxy and stub objects to have the ability to verify object type (see column 15, line 60 through column 16, line 55).

17. Regarding claims 8, 15, and 23, Marcos disclosed sending messages between client and server in both directions, thus providing a bi-directional channel as claimed (see column 7, lines 55-56).

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18. Claims 1, 6-9, 14-17, and 22-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Kingdon (U.S. Pat. No. 5,349,642), hereinafter referred to as Kingdon.

19. Regarding claims 1, 9, and 17, Kingdon disclosed a method and system for client/server communication. A client and server made use of client and server stubs connected to a transport for communicating to each other, thus providing paired message gates as claimed (see column 1, lines 30-54; Fig. 1). Kingdon disclosed a specific protocol for use in the system (see column 2, lines 38-40). Kingdon disclosed the use of network addresses for the source and destination of a message, thus providing a transport reference as claimed (see column 2, lines 50-52).

20. Regarding claims 6, 7, 14, and 22, Kingdon disclosed appending a credential to each message packet (see column 3, line 68 through column 4, line 6). The receiver then verified the credential to authenticate the message (see column 4, lines 6-13).

21. Regarding claims 8, 15, and 23, connections between client and server stubs through the transport were bi-directional (see Fig. 1).

22. Regarding claims 16 and 24, Kingdon disclosed using network addresses for sources and request packets (see column 2, lines 50-52, 62-65).

Claim Rejections - 35 USC § 103

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

24. Claims 5, 13, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marcos et al. (U.S. Pat. No. 6,347,342), hereinafter referred to as Marcos, and further in view of Bergman et al. (U.S. Pat. No. 6,564,263), hereinafter referred to as Bergman.

25. Marcos disclosed a method and system for transmitting message objects between a client and server. A connection between client objects and server objects was created through proxy and stub objects, which allowed for sending and receiving messages, thus providing message gates as claimed (see column 9, lines 39-41). An association was mapped between proxy and stub objects, pairing them together (see column 7, lines 37-39). Marcos disclosed a transport layer for transmitting messages, and disclosed the use of a protocol within the transport (see column 8, lines 36-41). Marcos disclosed proxy and stub objects to have the ability to verify object type (see column 15, line 60 through column 16, line 55). Marcos disclosed sending messages between client and server in both directions, thus providing a bi-directional channel as claimed (see column 7, lines 55-56).

26. Marcos did not specifically mention the use of the XML format for messages. Marcos did however express the desire to provide messaging between different environments and regardless of object implementation (see column 15, lines 62-64; column 16, lines 26-32). One of ordinary skill in the art then would have been led to search related art for ways to enhance messaging between different environments.

27. Bergman disclosed a framework for providing multimedia content description in a networked environment. Bergman disclosed the use of XML as the basis of the

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representation language (see column 14, lines 7-11). Bergman stated a portability advantage of XML, as it is independent of machine, operating system, programming language, etc., as well as its ability to link content of different modality (see column 14, lines 14-18).

28. It was a desire of Marcos to provide messaging between clients and servers operating under different environments and object implementations (see column 15, lines 62-64; column 16, lines 26-32). While Marcos did not specifically mention the use of XML, it would have been obvious to one of ordinary skill in the art to consider the use of such a format, as Bergman disclosed XML to be both portable, independent of operating environment, and advantageous for linking different modalities of content (see column 14, lines 14-22), thus providing messaging between different environments and implementations as desired by Marcos.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hamilton et al. (U.S. Pat. No. 5,737,607) disclosed a client/server system using stubs to marshal remote object invocations.

Amit et al. (U.S. Pat. No. 5,659,701) disclosed a system for executing program modules on a multi-processor system, using client and server stubs.

Stadler et al. (U.S. Pat. No. 5,838,971) disclosed a distributed computing network for transferring information using stub interface procedures.

McQuistan et al. (U.S. Pat. No. 6,321,275) disclosed a system for performing remote procedure calls.

Hamilton et al. ("Subcontract: A Flexible Base for Distributed Programming", Sun Microsystems, Report Number: TR-93-13, April 1993.) disclosed a computing system for performing remote method invocation.

Wollrath et al. ("A Distributed Object Model for the Java System", USENIX Association, Conference on Object Oriented Technologies and Systems, June 17-21, 1996.) disclosed a distributed system for performing remote method invocation.

Ousterhout et al. ("The Sprite Network Operating System," Computer, IEEE, pp. 23-36, February 1988.) disclosed message passing using client/server stubs and a transport mechanism.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph R Maniwang whose telephone number is (703) 305-3179. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack B Harvey can be reached on (703)305-9705. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-5484.


JACK B. HARVEY
SUPERVISORY PATENT EXAMINER

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